Serial No. 09/518,695 Reply to Office Action dated September 11, 2003

Docket No. P-053

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

<u>Listing of Claims:</u>

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Claims 1-12. (Canceled)

13. (Currently Amended) A signal traffic routing method for a signaling network, comprising:

receiving a signal message at a signal transfer point, analyzing a routing label of the receiving received message, and determining the final destination;

analyzing whether the final destination of the received signal message is a local system based on a result of the analysis;

transferring the received signal message to [[the]] a message routing unit when the final destination is not the local system;

setting a signal route for transferring the signal message using a Signaling Link Selection of the routing label by the message routing unit;

selecting a link [[of]] for the signal message [[in]] from the link set of the set route and determining a link using [[the]] link determination history and link determination data; and updating the link determination history data based on the determined selected link.

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- 14. (Currently Amended) The method of claim 13, wherein the method is performed by a message transfer unit includes comprising a message discriminating unit, a message distributing unit, and [[a]] the message routing unit.
 - 15. (Original) The method of claim 13, wherein said routing label comprises:
 a signaling link selection bit;
 an originating point code; and
 a destination point code.
- 16. (Currently Amended) The method of claim 13, wherein said step for analyzing whether the final message is a local system comprises further comprising:

transferring [[a]] the received signal message to an operation unit a user part when the final message destination of the received signal message is a local system; and

transferring the message to the message routing unit when the final message destination is not the local system.

17. (Currently Amended) The method of claim 13, wherein said step for selecting the link comprises:

checking the link determination history, analyzing to determine whether the signal message is routed based on the same Signal Link Selection as the current a previous Signal Link

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Selection and routing the signal message through [[the]] a link [[of]] from the link determination history for obtaining determined to be a stable route [[of]] for the data in the case that the signal message [[is]] has been previously routed in the past using the same Signal Link Selection; and determining the link of the Signal Link Selection as a signal link in the case that the signal message [[is]] has not been previously routed in the past using the same Signal Link Selection.

18. (Currently Amended) The method of claim 13, wherein said link determination data and link determination history comprises comprise:

a link determination history which is a variable representing that a signal message having a corresponding label is routed thorough through a corresponding link; and

a link determination data which is a variable representing an available link used when determining the next link.

19. (Currently Amended) The method of claim 13, wherein said the method is performed by a message transfer unit comprises comprising:

a message distributing unit that transfers a signal message to a user part of the local system;

a message discriminating unit that analyzes a message received from a message transfer unit and checks whether a final destination of the message is a local system; and

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[[a]] the message routing unit that which routes the message to a route connected with a neighboring signal transfer point to transfer the message to the final destination.

Claims 20-22. (Canceled)